IN THE CLAIMS

Claim 1(currently amended): A diaphragm pump for pumping aggressive and/or abrasive media, such as slurries, comprising a diaphragm housing ~~(29)~~ mounted in a substantially vertically disposed pipe system ~~(40)~~, which substantially vertically disposed pipe system comprises at least one inlet ~~(40a)~~ and at least one outlet ~~(40b)~~ positioned some distance above the inlet, as well as at least one substantially circular, flexible diaphragm ~~(25)~~ having a circular outer edge ~~(25a)~~, which diaphragm is movable within the diaphragm housing under the influence of a working liquid ~~(24)~~ that can be pressurised, with the circular outer edge ~~(25a)~~ of the diaphragm being clamped down in the diaphragm housing by means of a circular clamping member ~~(29a)~~, wherein said clamping member ~~(29a)~~ defines a (circular) plane, characterized in that the circular clamping member is provided, on its circumferential edge ~~(29a')~~, with a flange ~~(50)~~ that extends parallel to the plane formed by the clamping member.

Claim 2(currently amended): A diaphragm pump according to claim 1, **characterized in that** the circular clamping member ~~(29a)~~ is provided with said projecting flange ~~(50)~~ substantially at the location of the outlet ~~(40b)~~ of the pipe system ~~(40)~~.

Claim 3(currently amended): A diaphragm pump according to claim 1 ~~or 2~~, **characterized in that** the projecting flange ~~(50)~~ is provided along the upper half of the circumferential edge ~~(29a')~~ of the clamping member ~~(29a)~~.

Claim 4(currently amended): A diaphragm pump according to claim 3, **characterized in that** the length of the projecting flange ~~(50)~~ varies along the upper half of the circumferential edge ~~(29a')~~.

Claim 5(currently amended): A diaphragm pump according to claim 4, **characterized in that** the length of the projecting flange ~~(50)~~ is greatest near the outlet ~~(40b)~~.

Claim 6(currently amended): A diaphragm pump according to claim 4 ~~or 5~~, **characterized in that** the length of the projecting flange ~~(50)~~ substantially equals zero in the middle of the circumferential edge ~~(29a')~~, in particular up to about 30° below the middle of the circumferential edge.

Claim 7(currently amended): A diaphragm pump according to ~~any one of the preceding claims~~ claim 1, **characterized in that** the end edge ~~(50a)~~ of the projecting flange (50) is curved.

Claim 8(currently amended): A diaphragm pump according to claim 7, **characterized in that** the radius (R) of curvature of the end edge ~~(50a)~~ is approximately equal to the thickness of the diaphragm ~~(25)~~.

Claim 9(currently amended): A diaphragm pump according to claim 7 ~~or 8~~, **characterized in that** the curvature of the end edge ~~(50a)~~ is proportional to the counter curvature of the preformed diaphragm ~~(25)~~.

Claim 10(currently amended): A diaphragm pump according to ~~any one or more of the claims 7-9~~ claim 7, **characterized in that** the radius of curvature of the end edge (50a) ranges from 8 to 80 mm.

Claim 11(currently amended): A diaphragm pump according to claim 10, **characterized in that** the curvature of the end edge ~~(50a)~~ extends accordance to a second or higher degree polynomial.